

WHAT IS CLAIMED IS:

1        1. A method facilitating collaboration between a plurality of users of incompatible hardware  
2 and/or operating systems, comprising:

3            selectively generating predetermined objects, text objects, active hyperlink objects, active  
4 track objects, freehand drawing objects, images and 3D images which are displayable at user-selected  
5 locations on a White Board screen of one of the users;

6            transmitting all generated ones of the predetermined, the active hyperlink, the text, the active  
7 track, and the freehand drawing objects, the images and the 3D images for selective distributions to  
8 each of the other users; and

9            filtering the predetermined, the active hyperlink, the text, the active track, and the freehand  
10 drawing objects, the images and the 3D images to thereby permit selective retransmission of the  
11 predetermined, the active hyperlink, the text, the active track, and the freehand drawing objects, the  
12 images and the 3D images to respective ones of the other users.

1        2. The method as recited in claim 1, wherein one of the respective ones of the other users is  
2 a new user.

1        3. The method as recited in claim 1, wherein the filtering step selectively transmits the  
2 predetermined, the active hyperlink, the text, the active track, and the freehand drawing objects, the  
3 images and the 3D images to respective ones of the other users having at least a predetermined  
4 privilege level.

1        4. The method as recited in claim 1, wherein each of the predetermined, the active hyperlink,  
2 the text, the active track, and the freehand drawing objects, the images and the 3D images has an  
3 associated privilege level and wherein the filtering step selectively transmits the predetermined, the  
4 active hyperlink, the text, the active track, and the freehand drawing objects and the images and the  
5 3D images to respective ones of the other users having at least the associated privilege level.

1           5. The method as recited in claim 1, wherein the filtering step is bypassed when all of the user  
2 have an identical privilege level.

1           6. The method as recited in claim 1, wherein the predetermined object comprises a multimedia  
2 presentation.

1           7. The method as recited in claim 1, further comprising the step of shutting down at least one  
2 of the White Board clients responsive to a received command signal.

1           8. The method as recited in claim 1, wherein operating a first active hyperlink on a first White  
2 Board client causes selected other ones of the White Board clients to display the file specified by the  
3 universal resource locator (URL) associated with the first active hyperlink.

1           9. The method as recited in claim 1, wherein repeated operation of the selectively generating,  
2 transmitting, and filtering steps defines a White Board session, the method further comprising storing  
3 data representative of the White Board session as a web page.

1           10. The method as recited in claim 1, wherein repeated operation of the selectively generating,  
2 transmitting, and filtering steps defines a White Board session, the method further comprising storing  
3 data representative of the White Board session as a White Board session file.

1           11. The method as recited in claim 10, further comprising replaying a selected portion of the  
2 White Board session file to thereby regenerate a corresponding portion of the White Board session.

1           12. The method as recited in claim 1, wherein repeated operation of the selectively  
2 generating, transmitting, and filtering steps defines a White Board session, the method further  
3 comprising reconstructing the White Board session for a new user from objects re-transmitted by a  
4 previously logged in user.

1           13. A method facilitating collaboration between a plurality of users of incompatible hardware  
2 and/or operating systems, comprising:  
3           generating a White Board server;  
4           generating first and second White Board clients;  
5           selectively generating predetermined objects, text objects, active hyperlink objects, active  
6 track objects, freehand drawing objects, images, and 3D images on a screen associated with the first  
7 White Board client;  
8           transmitting all generated ones of the predetermined, the active hyperlink, the text, the active  
9 track, and the freehand drawing objects, the images, and the 3D images to the White Board server;  
10          filtering the predetermined, the active hyperlink, the text, the active track, and the freehand  
11 drawing objects, the images, and the 3D images to thereby permit the White Board server to  
12 selectively relay the predetermined, the active hyperlink, the text, the active track, and the freehand  
13 drawing objects, the images, and the 3D images to the second White Board client; and  
14          transmitting the generated objects from the White Board server to the second White Board  
15 client.

1           14. The method as recited in claim 13, further comprising the steps of:  
2           generating a third White Board client; and  
3           transmitting the generated objects from one of the first and the second White Board clients  
4 to the third White Board client upon receipt of a command from the White Board server.

1           15. The method as recited in claim 13, wherein repeated operation of the selectively  
2 generating, first transmitting, filtering, and second transmitting steps defines a White Board session,  
3 the method further comprising storing data representative of the White Board session as a web page.

1           16. The method as recited in claim 13, wherein repeated operation of the selectively  
2 generating, first transmitting, filtering, and second transmitting steps defines a White Board session,  
3 the method further comprising storing data representative of the White Board session as a White  
4 Board session file.

1           17. The method as recited in claim 16, further comprising replaying a selected portion of the  
2 White Board session file to thereby regenerate a corresponding portion of the White Board session.

1           18. The method as recited in claim 16, further comprising:  
2           filtering the White Board session file using a predetermined filter criteria; and  
3           replaying filtered portions of the White Board session file to thereby regenerate a  
4 corresponding portion of the White Board session for ones of the White Board clients satisfying the  
5 predetermined filter criteria.

1           19. The method as recited in claim 13, wherein repeated operation of the selectively  
2 generating, transmitting, and filtering steps defines a White Board session, the method further  
3 comprising reconstructing the White Board session for a new user from objects re-transmitted by a  
4 previously logged user.

1           20. The method as recited in claim 13, wherein the generated object comprises an object  
2 sequence, and wherein each member of the object sequence is different than all other members of the  
3 object sequence.

1           21. A White Board system permitting a plurality of users to collaborate with one another  
2 irrespective of the respective user's hardware platform or operating system, comprising:  
3           a server computer; and  
4           a plurality of client computers coupled to the server computer;  
5           wherein:  
6           each of the client computers logs into the server computer and is thereby assigned a unique  
7 identifier;  
8           each of the client computers includes a graphical user interface (GUI) which selectively  
9 displays any combination of objects having active content, active Hyperlinks, and text;

10           each of the client computers transmits user-generated objects to the server computer for  
11           selective retransmission to respective one of the client computers;

12           the server selectively controls transmission of all user-generated objects to respective ones  
13           of the computers responsive to the respective assigned identifier; and

14           the server commands one of the client computers to update a new client computer when the  
15           new client computer logs into the server.

1           22. The White Board system as recited in claim 21, wherein the server computer and the  
2           client computers are electrically coupled to one another via a local area network (LAN).

1           23. The White Board system as recited in claim 21, wherein the server computer runs a Web  
2           Server and wherein each of the client computers runs a Web browser client.

1           24. The White Board system as recited in claim 21, wherein:  
2           the server computer runs a Web Server distributing both a web page including a White Board  
3           client applet tag and the White Board client applet; and  
4           each of the client computers runs a Web browser client which automatically executes the  
5           White Board client applet when the White Board client applet has been transferred from the server  
6           computer.

1           25. A White Board system permitting a plurality of users to collaborate with one another  
2           irrespective of the respective user's hardware platform or operating system, comprising:

3           a primary server computer; and  
4           a plurality of client computers coupled to the primary server computer, each of the client  
5           computer having a respective privilege level and each of the client computers being operatively  
6           connected to the primary server computer;

7           wherein:  
8           each of the client computers transmits user-generated objects to the primary server computer;  
9           and

10                   the primary server selectively transmits the user-generated objects to respective ones of the  
11                   computers responsive to the respective privilege level.

1                   26. The White Board system as recited in claim 25, further comprising a secondary server  
2                   computer, wherein all of the client computers disconnect from the primary server computer and  
3                   reconnect to the secondary server computer when the primary server computer is unavailable.

1                   27. The White Board system as recited in claim 25, wherein each of the client computers has  
2                   a respective privilege level and a respective group association, and wherein the primary server  
3                   selectively transmits the user-generated objects to respective ones of the computers responsive to the  
4                   respective privilege level and the respective group association.

1                   28. The White Board system as recited in claim 25, wherein the primary server computer is  
2                   operatively connected to an object source providing a predetermined object and wherein the primary  
3                   server computer selectively transmits the predetermined object to the client computers responsive to  
4                   the respective privilege level.

1                   29. The White Board system as recited in claim 28, wherein the predetermined object varies  
2                   over time.

1                   30. The White Board system as recited in claim 25, wherein the primary server multicasts the  
2                   user-generated objects to all of the computers when the respective privilege level of all of the client  
3                   computers are identical.

1                   31. Machine readable code stored in memory for converting a general purpose computer  
2                   system into a dedicated White Board system facilitating collaboration between a plurality of users,  
3                   the machine readable code generating:

4                   a predetermined object placement tool for generating predetermined objects which are  
5                   displayable at user-selected locations on a White Board screen;

6 a text placement tool for generating text objects which are displayable at user-selected  
7 locations of the White Board screen;

8 a hyperlink connection tool for generating active hyperlink objects which are displayable at  
9 user-selected locations on the White Board screen;

10 a track object tool for placing active track objects which are displayable at user-selected  
11 locations on the White Board screen;

12 a freehand drawing tool for generating freehand drawing objects which are displayable at user-  
13 selected locations on the White Board screen;

14 a 3D object placement tool for generating predetermined 3D objects which are displayable  
15 at user-selected locations on a White Board screen;

16 a transmission device for transmitting all generated ones of the objects to each of the users;  
17 and

18 a filter device connecting all of the users and permitting selective transmission of the objects  
19 to the users.

32. The machine readable code as recited in claim 31, wherein the filter device selectively  
transmits the objects to users having at least a predetermined privilege level.

33. The machine readable code as recited in claim 31, wherein each of the objects has an  
associated privilege level and wherein the filter device selectively transmits the objects to users having  
at least the privilege level.

34. Machine readable code stored in memory for converting a general purpose computer  
system into a dedicated White Board system facilitating collaboration between a plurality of users,  
the machine readable code generating:

a first White Board client which instantiates first objects having an associated first indicia;

a second White Board client which instantiates second objects having an associated second  
indicia;

7 a web server which transmits portions of the machine readable code generating the first and  
8 the second White Board clients; and

9  
10 a White Board server which operatively couples the first and the second White Board clients  
11 to one another, and which selectively relays the first and the second objects between the second and  
the first White Board clients, respectively, responsive to the first and second indicia.

1 35. The machine readable code as recited in claim 34, wherein the first and second indicia  
2 correspond to first and second privilege levels, respectively.

3 36. The machine readable code as recited in claim 34, wherein the machine readable code  
4 further comprises code generating a predetermined object server which receives the predetermined  
object from an object source excluding any of the White Board clients, and which transmits the  
predetermined object to all of the White Board clients.

5 37. The machine readable code as recited in claim 36, wherein the predetermined object  
6 comprises an object sequence which varies over time.

7 38. The machine readable code as recited in claim 34, wherein the machine readable code  
8 includes code for recreating a White Board session from the stored objects.

9  
10 39. The machine readable code as recited in claim 34, further comprising code for storing a  
11 White Board session in a White Board session file.

11 40. The machine readable code as recited in claim 39, further comprising machine readable  
code for regenerating selected portions of the White Board session by replaying selected portions of  
the White Board session file.

1           41. The machine readable code as recited in claim 39, wherein the code for storing is  
2 responsive to a privilege level of a respective user to thereby save only that portion of the White  
3 Board session having a corresponding privilege level.

1           42. The machine readable code as recited in claim 39, wherein the code for storing saves the  
2 White Board session and information indicative of the privilege level of the White Board session.  
*Sub A3*

1           43. The machine readable code as recited in claim 39, wherein the code for storing saves the  
2 White Board session irrespective of privilege level.

1           44. The machine readable code as recited in claim 39, wherein the code for storing saves  
2 selected portions of the White Board sessions having a privilege level less than or equal a selected  
3 privilege level.

1           45. The machine readable code as recited in claim 39, wherein the machine readable code  
2 further comprises code for storing data representative of a White Board session as a web page  
3 associated with the web server.

1           46. The machine readable code as recited in claim 34, further comprising:  
2           code for instantiating a chat function to thereby permit communication between the users; and  
3           code for storing a White Board session synchronized with the communications between the  
4           users in a White Board session file.  
*Sub A4*

1           47. The machine readable code as recited in claim 46, further comprising machine readable  
2 code for regenerating selected portions of the White Board session by replaying selected portions of  
3 the White Board session file synchronized to the replaying of the communications between the users.

1           48. A memory storing machine readable code for converting a general purpose computer  
2           system into a dedicated White Board system facilitating collaboration between a plurality of users,  
3           the memory comprising:

4           a first memory storing first machine readable code generating:

5           a first White Board client which instantiates first objects having an associated first  
6           indicia;

7           a second White Board client which instantiates second objects having an associated  
8           second indicia; and

9           a second memory storing second machine readable code generating

10           a White Board server which operatively couples the first and the second White Board  
11           clients to one another, and which selectively relays the first and the second objects  
12           between the second and the first White Board clients, respectively, responsive to the  
13           first and second indicia.

1           49. The memory as recited in claim 48, wherein the second machine readable code further  
2           comprises code generating a predetermined object server which receives the predetermined object  
3           from an object source excluding any of the White Board clients, and which transmits the  
4           predetermined object to all of the White Board clients.

1           50. The memory as recited in claim 49, wherein the predetermined object comprises an object  
2           sequence wherein each member of the object sequence is different than all other members of the  
3           object sequence.

1           51. The memory as recited in claim 48, wherein the second machine readable code includes  
2           code for recreating a White Board session from a White Board session file.

1           52. The memory as recited in claim 51, wherein the second machine readable code includes  
2           code for recreating a selected portion of the White Board session from a corresponding portion of  
3           the White Board session file.

4           53. The memory as recited in claim 48, wherein the second machine readable code includes  
5 code for recreating a White Board session from a web page.

1           54. The memory as recited in claim 48, wherein the second machine readable code includes  
2 code for saving a White Board session as a web page.

1           55. The memory as recited in claim 48, wherein:  
2           the first memory storing first machine readable code generating:  
3           a first White Board client which instantiates first objects having an associated first indicia;  
4           a second White Board client which instantiates second objects having an associated second  
5           indicia;  
6           a third White Board client which instantiates third objects having an associated third indicia;  
7           and  
8           the second machine readable code includes code for commanding one of the first and second  
9           White Board clients to update the third White Board client when the third White Board client is  
10          instantiated after the first and the second White Board clients are instantiated.

1           56. A method facilitating collaboration between a plurality of users of incompatible hardware  
2           and/or operating systems, comprising:  
3           selectively generating predetermined objects, text objects, active hyperlink objects, active  
4           track objects, freehand drawing objects, images and 3D images which are displayable at user-selected  
5           locations on a White Board screen of one of the users;  
6           transmitting all generated ones of the predetermined, the active hyperlink, the text, the active  
7           track, and the freehand drawing objects, the images and the 3D images for selective distributions to  
8           each of the other users, and commands responsive thereto; and  
9           filtering the commands regarding the predetermined, the active hyperlink, the text, the active  
10          track, and the freehand drawing objects, the images and the 3D images to thereby permit selective  
11          fetching of the predetermined, the active hyperlink, the text, the active track, and the freehand  
12          drawing objects, the images and the 3D images by respective ones of the other users.

1           57. The method as recited in claim 56, wherein the filtering step selectively transmits the  
2 commands regarding the predetermined, the active hyperlink, the text, the active track, and the  
3 freehand drawing objects, the images and the 3D images to respective ones of the other users having  
4 at least a predetermined privilege level.

1           58. The method as recited in claim 56, wherein each of commands associated with the  
2 predetermined, the active hyperlink, the text, the active track, and the freehand drawing objects, the  
3 images and the 3D images has an associated privilege level and wherein the filtering step selectively  
4 transmits commands corresponding to the predetermined, the active hyperlink, the text, the active  
5 track, and the freehand drawing objects and the images and the 3D images to respective ones of the  
6 other users having at least the associated privilege level.

1           59. The method as recited in claim 56, wherein repeated operation of the selectively  
2 generating, transmitting, and filtering steps defines a White Board session, the method further  
3 comprising storing data representative of the White Board session as a JPEG image.

1           60. The method as recited in claim 56, wherein repeated operation of the selectively  
2 generating, transmitting, and filtering steps defines a White Board session, the method further  
3 comprising storing data representative of the White Board session as a White Board session file.

1           61. The method as recited in claim 60, further comprising the step of replaying a selected  
2 portion of the White Board session file to thereby regenerate a corresponding portion of the White  
3 Board session.

1           62. The method as recited in claim 56, wherein repeated operation of the selectively  
2 generating, transmitting, and filtering steps defines a White Board session, the method further  
3 comprising reconstructing the White Board session for a new user from commands re-transmitted by  
4 a previously logged in user.

5           63. A method facilitating collaboration between a plurality of users of incompatible hardware  
6 and/or operating systems, comprising:

7           generating a White Board server;

8           generating first and second White Board clients;

9           selectively generating predetermined objects, text objects, active hyperlink objects, active  
10 track objects, freehand drawing objects, images, and 3D images on a screen associated with the first  
11 White Board client;

12           transmitting commands and all generated ones of the predetermined, active hyperlink, text,  
13 active track, and freehand drawing objects, the images, and the 3D images to the White Board server;

14           filtering the commands associated with the predetermined, the active hyperlink, the text, the  
15 active track, and the freehand drawing objects, the images, and the 3D images to thereby permit the  
16 White Board server to selectively relay the filtered commands to the second White Board client; and

17           fetching the generated objects from the White Board server to the second White Board client  
18 responsive to the filtered commands.

1           64. The method as recited in claim 63, further comprising the steps of:

2           generating a third White Board client;

3           transmitting the filtered commands from one of the first and the second White Board clients  
4 to the third White Board client upon receipt of a command from the White Board server; and

5           fetching the generated objects associated with the filter commands from the White Board  
6 server to the third White Board client.

1           65. The method as recited in claim 63, wherein repeated operation of the selectively  
2 generating, transmitting, filtering, and fetching steps defines a White Board session, the method  
3 further comprising storing data representative of the White Board session as a JPEG image.

1           66. The method as recited in claim 63, wherein one of the generated objects comprises an  
2 object sequence, and wherein each member of the object sequence is different than all other members  
3 of the object sequence.

1           67. A White Board system permitting a plurality of users to collaborate with one another  
2           irrespective of the respective user's hardware platform or operating system, comprising:  
3           a server computer; and  
4           a plurality of client computers coupled to the server computer;  
5           wherein:  
6           each of the client computers logs into the server computer and is thereby assigned a unique  
7           identifier;  
8           each of the client computers includes a graphical user interface (GUI) which selectively  
9           displays any combination of objects having active content, active hyperlinks, and text;  
10           each of the client computers transmits commands and respective user-generated objects to  
11           the server computer for selective retransmission to respective one of the client computers;  
12           the server selectively controls transmission of the commands to respective ones of the  
13           computers responsive to the respective assigned identifier;  
14           the client computers selectively fetch respective ones of the user-generated objects responsive  
15           to the received commands; and  
16           the server commands one of the client computers to update a new client computer when the  
17           new client computer logs into the server.

1           68. The White Board system as recited in claim 67, wherein the server computer and the  
2           client computers are electrically coupled to one another via a local area network (LAN).

1           69. The White Board system as recited in claim 67, wherein the server computer runs a Web  
2           Server and wherein each of the client computers runs a Web browser client.

1           70. The White Board system as recited in claim 67, wherein:  
2           the server computer runs a Web Server distributing both a web page including a White Board  
3           client applet tag and the White Board client applet; and

4           each of the client computers runs a Web browser client which automatically executes the  
5   White Board client applet when the White Board client applet has been transferred from the server  
6   computer.

1           71. The White Board system as recited in claim 70, wherein the White Board client applet  
2   instantiates a plug-in conforming to a predetermined application programming interface (API).

1           72. A White Board system permitting a plurality of users to collaborate with one another  
2   irrespective of the respective user's hardware platform or operating system, comprising:

3           a primary server computer; and

4           a plurality of client computers coupled to the primary server computer, each of the client  
5   computer having a respective privilege level and each of the client computers being operatively  
6   connected to the primary server computer;

7           wherein:

8           each of the client computers transmits user-generated objects to the primary server computer;  
9   and

10           the primary server selectively transmits the user-generated objects to respective ones of the  
11   computers responsive to the respective privilege level and commands from the respective ones of the  
12   computers.

1           73. The White Board system as recited in claim 72, further comprising a secondary server  
2   computer, wherein all of the client computers disconnect from the primary server computer and  
3   reconnect to the secondary server computer when the primary server computer is unavailable.

1           74. The White Board system as recited in claim 72, wherein each of the client computers has  
2   a respective privilege level and a respective group association, and wherein the primary server  
3   selectively transmits the user-generated objects responsive to commands from respective ones of the  
4   computers having the requisite privilege level and group association.

1           75. The White Board system as recited in claim 72, wherein the primary server computer is  
2 operatively connected to an object source providing a predetermined object and wherein the client  
3 computers having the requisite privilege level selectively fetch the predetermined object from the  
4 primary sever computer.

1           76. The White Board system as recited in claim 75, wherein the predetermined object varies  
2 over time.

1           77. The White Board system as recited in claim 72, wherein the primary server multicasts the  
2 commands associated with the user-generated objects to all of the client computers when the  
3 respective privilege level of each of the client computers are identical.